

**SHOE PRESS BELT WITH SYSTEM  
FOR DETECTING OPERATIONAL PARAMETERS**

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**Abstract of the Disclosure**

10 A shoe press includes: a first member; a second member; a substantially  
cylindrical belt; and a processing unit. The first member has a convex pressing  
surface. The second member includes a shoe with a concave pressing surface  
substantially complimentary to the convex pressing surface. The second member  
15 further includes a pair of substantially circular head plates rotatably mounted on  
axially opposed ends thereof. The belt is fixed to, extends between, and is rotatable  
with the head plates such that a portion of the belt passes between the convex pressing  
surface and the concave pressing surface. The belt includes embedded therein a  
communications cable having a plurality of sensors configured to generate signals  
responsive to an operating parameter of the shoe press. The processing unit is in  
communication with the communications cable and processes signals generated by the  
sensors. Thus, signals generated by the sensors and processed by the processing unit  
represent conditions (particularly pressure, nip width, temperature, strain and stress)  
within the nip of the shoe press that can be displayed and understood by an operator.